

REMARKS

Claims 1, 3-5, 7, 8, 11, 12, 14, 15, 17, 18, 21, 22, 24, 25, 27 and 38-41 are pending in the application. It is gratefully acknowledged that the Examiner has found allowable subject matter in Claim 4. In the Office Action, the Examiner has maintained the rejection of Claims 1, 3-5, 7, 8, 11, 12, 14, 15, 17, 18, 21, 22, 24, 25, 27 and 38-41 under 35 U.S.C. §103(a) as being unpatentable over the Admitted Prior Art (APA) in view of Heikkinen et al. (WO 95/32558) and further in view of Lamoureux et al. (U.S. 6,330,458).

Please amend Claim 38 as set forth herein. No new matter has been added.

Regarding the rejections of independent Claims 1, 5, 8, 18, 38 and 40 under 35 U.S.C. §103(a), the Examiner alleges that the claims are unpatentable over the APA in view of Heikkinen et al., and further in view of Lamoureux et al. Heikkinen et al. discloses a method for improving connection quality in a cellular radio system, and a base station; and, Lamoureux et al. discloses intelligent antenna sub-sector switching for time slotted systems.

Each of Claims 1, 5, 8, 18, 38 and 40 recites either “wherein the non-transmission period of a last time slot is a non-transmission period intervening between sub-frames”, “wherein the guard period of a last time slot is a guard period intervening between sub-frames”, or “wherein...the guard period of a last time slot of a sub frame corresponds to a non-transmission period intervening between sub-frames.”

In the claims of the present application, a switching control signal is generated such that **the switching occurs only in a non-transmission period (or guard period) of a last time slot within a sub-frame**. The switching occurs **only** in a non-transmission period of a last time slot within a sub-frame, and the non-transmission period of a last time slot is a non-transmission period intervening between the sub-frames. That is, in each frame, the switching only occurs once and only in one specific non-transmission period or guard period located at a last time slot

within a sub-frame.

In Lamoureux the switching can occur in any, all or none of the guard periods; there is no specific requirement that switching occur only once in a frame and only in a non-transmission period (or guard period) of a last time slot within a sub-frame. The APA also teaches that switching can occur in various time slots and at various times.

Thus the combination of Lamoureux and the APA would only result in a switching that occurs whenever and wherever in a frame. This is not and cannot be equated with a switching that occurs only in a non-transmission period (or guard period) of a last time slot within a sub-frame as recited in the claims of the present application.

Lamoureux teaches that the switching can occur in any period of each time slot within a sub-frame; and, in the claims of the present application, the switching occurs only in a non-transmission period of a last time slot within a sub-frame.

Further, in Fig. 4, Lamoureux discloses switching in a last time slot occurs in a guard time located before the last time slot. Whereas, in the claims of the present application, switching in a last time slot occurs **only in a non-transmission period located after the last time slot i.e. in the guard period.** That is, in the claims of the present application, the switching occurs in the boundary between the sub-frames, whereas in Lamoureux, the switching does not occur in the boundary between sub-frames.

Further, in Fig. 4, Lamoureux teaches that the switching in a first time slot occurs in a guard time located before the first time slot within a next sub-frame following the existing sub-frame. This feature of Lamoureux is different from that which is recited in the claims of the present application.

Therefore, Lamoureux fails to disclose at least the limitation of the switching control

signal generated such that the switching occurs only in a non-transmission period of a last time slot within a sub-frame, as recited in the claims of the present application.

As is well known, in common TDD CDMA mobile communication systems, data is transmitted in a sub-frame unit configured for the uplink and the downlink. Since data transmission is performed using a sub-frame as a unit, the claims of the present application suggest using a switching pattern such that the switching occurs in a non-transmission period of a last time slot within a sub-frame. Lamoureux does not teach or disclose this switching pattern of the claims of the present application.

Moreover, when a switching occurs in each time slot as disclosed in Lamoureux, this can require that a particular slot needs to be transmitted through a particular antenna. However, the claims of the present application suggest only one switching within a sub-frame by using a sub-frame unit for data transmission to prevent this inefficient performance.

Heikkinen does not cure the defects of Lamoureux and the APA. Thus, the combination of the APA, Heikkinen and Lamoureux does not teach or disclose the limitations of the claims of the present application.

Based on at least the foregoing, withdrawal of the rejection of Claims 1, 5, 8, 18, 38 and 40 under 35 U.S.C. §103(a), is respectfully requested.

Independent Claims 1, 5, 8, 18, 38 and 40 are believed to be in condition for allowance. Without conceding the patentability per se of dependent Claims 3, 7, 11, 12, 14, 15, 17, 21, 22, 24, 25, 27, 39 and 41, these are likewise believed to be allowable by virtue of their dependence on their respective amended independent claims. Accordingly, reconsideration and withdrawal of the rejections of dependent Claims 3, 7, 11, 12, 14, 15, 17, 21, 22, 24, 25, 27, 39 and 41 is respectfully requested.

Accordingly, all of the claims pending in the Application, namely, Claims 1, 3-5, 7, 8, 11, 12, 14, 15, 17, 18, 21, 22, 24, 25, 27 and 38-41, are believed to be in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'DyLLGDA', written over the printed name of Douglas M. Owens, III.

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